

CHAPTER 11 - INVESTMENT STRATEGY AND PROJECT SELECTION



Introduction

The project selection process fulfills several needs in the metropolitan planning process. In order to spend federal dollars on local transportation projects and programs, a metropolitan area must have an adopted Metropolitan Transportation Plan (MTP) and a Transportation Improvement Program (TIP). The MTP is a long-range plan, normally 20 to 25 years, which outlines the long-term goals for the region's transportation system. The TIP is a four-year document that lists construction projects and studies over a four-year period. The most recent TIP in the Permian Basin MPO covers FY 2017 - 2020. Fiscal constraint has been a key component of transportation planning and program development since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. For planning purposes, this means that the cost of projects selected for inclusion in the MTP's planning horizon must reasonably match the expected funding levels for that time period; furthermore, the cost of those projects included in the four-year TIP must not exceed projected funding available during the four-year period. Because of the limited resources available, a process was followed to evaluate and rank projects for the MTP.

Regional Project Selection Process

The initial step in the project selection process was the generation of a list of projects for screening and evaluation. Many projects were carried over from the 2010-2035 MTP while others were added as a result of stakeholder, community and Technical Advisory Committee (TAC) input. Currently funded projects in the previous plan as well as the *Vision 2040 Plan* are identified along with their funding source. Regionally significant projects potentially funded through outside sources are included in the project listings as well. A screening tool and a scoring sheet (see Appendix 11.1) created by the Permian Basin MPO staff with assistance from the TAC was used to screen and score the projects. Each of the listed projects, not including the grouped MPO projects by category, scored by a committee consisting of the TAC and the Permian Basin MPO staff. It was further determined by the TAC that it was imperative to complete the six priority corridors and to place related projects into the top tier of funding priorities. The priority corridors were IH 20, Loop 250, Loop 338, FM 1788, Business 20 from FM 1788 to Wall St., and SH 191 from Loop 338 to Loop 250. A few projects not located on these corridors were also placed on the priority list. During the development of *Vision 2040 Plan* Amendment No. 4 the Policy Board directed the TAC to develop a comprehensive priority corridor map which developed into Map 11.2, the Regionally Significant Corridors Map. This map effectively identifies the different types of regional corridors ranging from interstate to emerging regional corridors.

Once the top priority projects were identified according to the procedures described above, they were placed into the financially constrained component of the MTP based on the projected funding levels for the MTP planning horizon, project's score, and project's implementation timeline (readiness). Once reasonable fiscal constraint for the MTP planning horizon was reached,

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projects were placed in the unfunded priority section of the MTP. The process of moving a project forward to the TIP is a cooperative process between Permian Basin MPO and the TxDOT Odessa District.

During TIP updates, projects will be moved from the financially constrained component of the MTP to the TIP. As the MTP planning horizon is revised or when new information is available on projected funding levels, a reevaluation of MTP projects will be required.

2040 Plan Amendments No. 2 and 3 were completed to indicate revised funding availability through Proposition 1 and again with Proposition 7 in November 2015. The project list was revised to coincide with the amended financial forecast.

Vision 2040 Plan Amendment No. 4 began in the spring of 2017 with the announcement of new Category 4 (Urban) Statewide Connectivity Corridor funds being made available for use within

MPO boundaries, and in anticipation of the development of the new 10-year state-wide UTP. The Policy Board directed the TAC to revisit the list of fiscally constrained projects. A revised scoring criteria was developed (See Appendix 11.1) along with the Regionally Significant Corridor map.

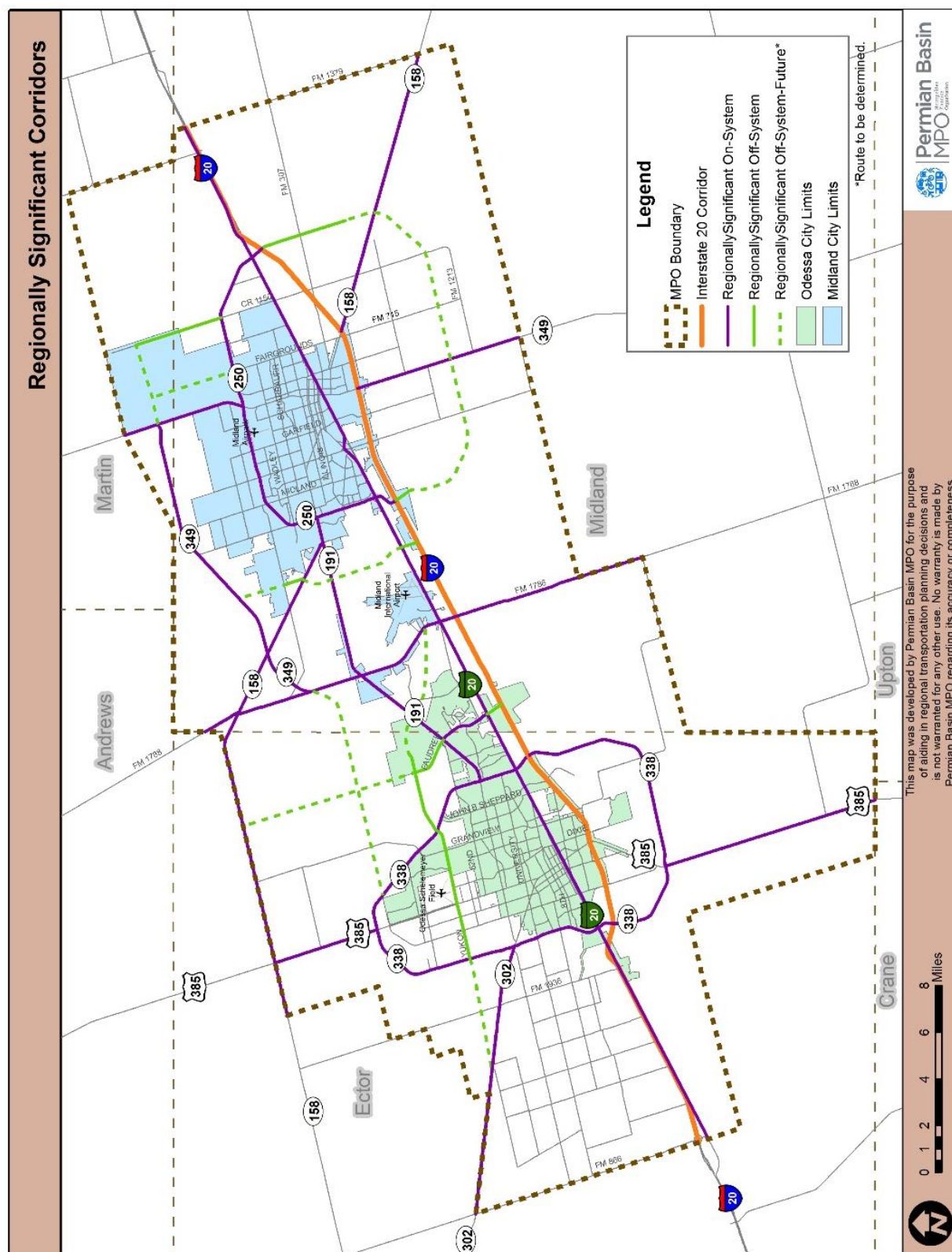
This process reflected a balance of community needs and stakeholder commitments including the financial commitments from both the Midland and Odessa development corporations resulting in an amended project list for Policy Board consideration. Additional projects introduced during Amendment No. 4 include Regional Traffic Synchronization and Railroad Intersection Improvements.

During this plan amendment process, consultants had just concluded the Northeast Midland Feasibility study which was co-funded by the City of Midland and the MPO. The focus was on the need for additional north-south and east-west corridors in the growing area of northeast Midland, Midland and Martin Counties. The final documents identified a potential network to address connectivity in the area. These corridors are shown on Map 11-1 as potential future corridors.

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Map 11.1 Regionally Significant Corridors



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Project Cost Estimates

In order to indicate that the listed projects proposed within the plan are fiscally constrained in accordance with federal regulations, it was important to establish reasonable cost estimates for all of the projects. For the purpose of the plan, the TxDOT rate of inflation of 4% per year for project construction is utilized. For multi-year projects, the Year of Expenditure (YOE) is factored into the total cost with the same 4% inflation rate.

Project Type Descriptions

The following explanations were adapted from the Roadway Design Manual which was developed by TxDOT to provide guidance in the design of public roadway facilities. These details are included here to provide a basic description of the various projects included in this chapter. (<http://onlinemanuals.txdot.gov/txdotmanuals/rdw/rdw.pdf>)

Construct new interchange

Construct an interconnecting roadway in conjunction with one or more grade separations that provides for the movement of traffic between two or more roadways or highways on different levels.

Reconfigure interchange

Interchange reconfiguration is considered to be a change in access even though the number of actual points of access may not change; for example, replacing one of the direct ramps of a diamond interchange with a loop, or changing a cloverleaf interchange into a fully directional interchange is considered as revised access.

Upgrade to standards non-freeway

Upgrading of a non-freeway facility to current geometric standards including base or pavement support enhancements.

Widen non-freeway

Added capacity widening of an existing non-freeway facility, and addition of travel lanes.

Construct new location non-freeway

A non-freeway facility at a new location.

Improve mobility and add capacity

Improve mobility conditions that will allow an increase in the number of vehicles that can traverse a point or section of roadway during a set time period under prevailing roadway, traffic, and control conditions.

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Reconstruct interchange

Work proposed on the approximate alignment of an existing route that meets the geometric criteria for a new facility. Reconstruction includes widening to include additional through lanes, horizontal or vertical realignment, etc.

Rehabilitation

Reshaping and/or addition of existing base courses, including resurfacing within existing ROW. This includes minor safety upgrading, such as widening culverts and installing guard fences.

Project List

The project lists below contain transportation improvements as identified by Permian Basin MPO Policy Board, the TAC, staff, stakeholders and the public who attended public hearings and workshops during the development of the MTP and amendments. As stated in previous chapters, numerous opportunities for public and stakeholder input were offered during the preparation of the plan. The transportation improvements contained in this Chapter are intended to meet the immediate and anticipated needs within the 25-year time frame of the MTP and are subject to amendment(s) by the MPO Policy Board. The projects are divided into five categories:

- Funded
 - FY 2017 – 2020 Transportation Improvement Plan (TIP)
 - County Energy Transportation Reinvestment Zone (CETRZ)
 - Regionally Significant Funded Projects
- Fiscally Constrained Priority Projects
- Unfunded Projects
- Funded Transit
- Sample Grouped MPO Projects

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Some categories are broken down further and in the example of Grouped MPO Projects by Category listings there are sample or typical projects indicated that may be completed under the grouped category authority without the need to amend the MTP.

Funded Projects

FY 2017-2020 TIP

The TIP is a short-range planning document that describes construction projects and other work that will have significant impact on the transportation system over the four-year TIP time frame. These projects conform to the MTP and Table 11.1 contains TIP project details.

Table 11.1 FY 2017 – 2020 TIP Projects

County	Location	Limits	Project Description	MPO-ID	Total Project Cost	Funding Source
Midland	Loop 250	At Fairgrounds Rd	Construct new Interchange	RC-03a* (CI-120)	\$13,646,000	Category 2U Metropolitan Area/CAT 11
Ector	JBS Pkwy	At FM 3503	Realign existing roadway on new location	RC-02a* (CI-110)	\$2,600,000	Category 2U Metropolitan Area

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County Energy Transportation Reinvestment Zone (CETRZ)

A CETRZ is a specific contiguous zone around a planned transportation project that is established as a method to facilitate capture of the property tax increment arising from the increased valuation of adjacent properties with collected revenues being applied to the funding of the planned project. Senate Bill 1747 (2013) authorized this type of financing for counties to assist with transportation projects in areas affected by oil and gas exploration and production facilities. A new CETRZ is designated and created by a commissioner's court but must follow procedures laid out in state law. Table 11.2 contains the CETRZ projects in Midland and Ector County.

Table 11.2 FY 2015 – CETRZ Projects in Midland and Ector County

County	Location	Limits	Project Description	MPO-ID	Total Project Cost	Funding Source
Ector	Moss Ave.	University S. to I-20	Widen non-freeway	EC01	\$2,574,155	Transportation Infrastructure Fund Grant
Ector	W. 16th St.	Moss to Knox	Widen non-freeway	EC02	\$538,479	Transportation Infrastructure Fund Grant
Ector	W. 42nd St.	SH 302 to Knox	Widen non-freeway	EC03 RC-22a* (CI-527)	\$2,592,138	Transportation Infrastructure Fund Grant
Ector	Knox	3rd St. to 57th St.	Widen non-freeway	EC04	\$259,138	Transportation Infrastructure Fund Grant
Midland	IH 20	W. Loop 250 to FM 1788	Miscellaneous construction: construct entry/exit ramps	MC02	\$1,344,050	Transportation Infrastructure Fund Grant
Midland	CR 1230	S. Loop 250 to WCR 140 w/ exts. To CR 120 and CR 140	Construct new location non-freeway; Rehabilitation of existing portion of CR 140	MC01	\$6,109,177	Transportation Infrastructure Fund Grant

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Regionally Significant Funded Projects

The TxDOT Odessa District is one of 25 districts statewide which oversees the construction and maintenance of state highways. The Odessa District plans, designs, builds, operates and maintains the state transportation system within 12 counties including Ector, Midland and Martin County. As a partner in the transportation planning process they assist in the coordination of projects and work diligently to invest in the maintenance and development of the system within the Permian Basin MAB. The table below illustrates only some of the larger investments being made by the state and others in the network.

Table 11.3 Regionally Significant Funded Projects

County	Location	Limits	Project Description	MPO-ID	Total Project Cost	Funding Source
Midland	South Mobility Corridor	From IH 20 to SH 349	Feasibility study	RC-91	\$900,000	State
Ector	Loop 338	Cargo Rd to Trunk St	Convert Frontage Rds from 2-way to 1-way	RC-119	\$2,500,000	State & Developer
Ector	SH 191	Midland C/L to Loop 338	Perform PE work for freeway improvements	RC-97	\$501,822	State
Midland	SH 191	Ector C/L to SH 349	Perform PE work for freeway improvements	RC-98	\$501,821	State
Ector	IH 20	At Loop 338 eastern jct.	Reconstruct interchange	RC-37*	\$13,640,000	State
Ector	IH 20	At W County Rd	Reconstruct interchange	RC-31*	\$14,080,000	State
Ector/ Midland	IH 20	Within the Metropolitan Area Boundary	Study to modernize corridor	—	\$5,000,000	State
Ector/ Midland	N/A	Within the Metropolitan Area Boundary	Travel Demand Model	—	\$500,000	State
Midland	Briarwood	Avalon to Holiday Hill	Widen non-freeway	RC-121	\$5,500,000	City of Midland
Midland	Beal Parkway	Anetta to Thomason	Construct new location non-freeway	RC-125	\$2,000,000	City of Midland
Ector	University Blvd	Grandview to US 385	Road Improvements	—	\$11,000,000	City of Odessa

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Fiscally Constrained Priority Projects

As stated earlier, through public comment, multiple workshops and stakeholder meetings as well as in-depth discussions with the Permian Basin MPO Policy Board and TAC, a list of top priority projects was derived during the 25-year plan; these projects should improve conditions along the priority corridors that the above group believes to be the most important facilities within the region. This chapter indicates the high priority projects and Chapter 12 provides a reasonable estimate and explanation of funding. Note that most of the projects will be associated with the regionally significant corridors (see Map 11.2) with the exception of the approved CETRZ projects.

The fiscally constrained project list contains projects eligible for federal funding that may be further planned and eventually moved into the State Unified Transportation Plan (UTP) which has a ten-year horizon. The UTP lists all projects in the state that have development authority to commence design specifications, address right-of-way needs and environmental issues. Once placed in the ten-year UTP, a project is eligible to be placed in the State's Transportation Improvement Program (STIP) where authority is given for construction. The STIP contains each individual MPO Transportation Improvement Program (TIP) from across the state. The above project development scenario does not preclude a project from being moved into the UTP and placed into the Permian Basin MPO TIP in a faster manner; all project scheduling and construction timing are dependent on funding availability. When considering the list of projects contained in the plan the Permian Basin MPO Technical Advisory Committee and the Policy Board considered the MAP-21 and FAST Act planning factors and national performance goals listed in Chapter 2. In addition, the Permian Basin MPO is in compliance with the State of Texas House Bill 20 which requires that projects are selected using a list of established criteria including safety, mobility, environmental and economic considerations among others. For the purpose of the MTP Amendment No. 4, the planning period of 2018-2027 was utilized, along with the projected funding sources in Chapter 12.

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Table 11.4 Fiscally Constrained 10-year Priority Projects – FY 2018 - 2027

Sponsor	MPO-ID	Location	Limits	Length (miles)	Project Description	Target Year	Total Project Cost	Corridor Type
Ector	RC-21* (CI-119)	Loop 338	At US 385 N	1	Construct new interchange	2018	\$17,700,000	On- System
Midland	RC-59*	IH 20	Lamesa Rd to 715 FM	1	Ramp Reversals	2018	\$4,500,000	IH 20
Midland	RC-50b* int3 (CI-539)	IH 20	At CR 1250	1	Construct new interchange	2019	\$19,840,000	IH 21
Midland	RC-19* (CI-908)	Loop 250	At CR 1150/CR 60	1	Construct new interchange	2019	\$21,500,000	On- System
Ector	RC-10* int (CI-118)	Loop 338 N	At Yukon Rd	1	Construct new interchange	2020	\$19,200,000	On- System
Midland	RC-86 a	Loop 250	At SH 191	1	Ramp Reconfiguration	2021	\$10,000,000	On- System
Midland	RC-04*	IH 20	At Midkiff Rd	1	Reconfigure interchange	2021	\$25,520,000	IH 20
Ector	RC-42d	SH 191	At Yukon Rd	1	Construct new interchange	2021	\$18,560,000	On- System
Midland	RC-20* (CI-908)	Loop 250	At CR 1140	1	Construct new interchange	2022	\$19,200,000	On- System
Ector/ Midland	RC-15b* (CI-520)	IH 20	At Faudree	1	Construct new interchange	2022	\$19,200,000	IH 20
Ector	RC-13* int a (CI-118)	Loop 338 N	At 52nd/56th	1	Signal improvements	2022	\$4,800,000	On- System
Midland	RC-114	Wadley Ave. ext	W of Loop 250 to SH 158	1	Construct new location non-freeway & Improve Jal Draw	2023	\$12,420,000	Off-System
Ector	RC-40a* int a (CI-510)	Loop 338 N	At W. Yukon Rd	1	Signal improvements	2023	\$2,480,000	Off-System
Ector	RC-133	Faudree Rd	SH 191 to Yukon Rd	1.8	Construct as 5 Lane Arterial	2024	\$5,120,000	On- System
Midland	RC-124	Mockingbird	Holiday Hill to Midland Dr	1	Construct new location non-freeway	2024	\$5,120,000	Off-System
Ector	RC-09* (CI-114)	Loop 338	At US 385 S	1	Construct new interchange and convert 1.0 mi of US 385 to freeway	2024	\$22,120,000	On- System
Ector	RC-36a* (CI-901)	IH 20	JBS Pkwy to FM 1788	7	Improve mobility and add capacity	2025	\$3,000,000	IH 20
Midland	RC-95	IH 20	FM 1788 to Loop 250 western jct.	5	Improve mobility and add capacity	2025	\$3,000,000	IH 20
Ector/ Midland	RC-15a* (CI-520)	BI 20	At Faudree	1	Construct new interchange	2025	\$21,120,000	On- System
Ector	RC-131	Loop 338 W	At W. 8th St.	1	Construct new interchange	2026	\$21,760,000	On- System
Midland	RC-52*	FM 1788	SH 191 to IH 20	5	Upgrade to standards non-freeway	2027	\$8,400,000	On- System
TxDOT	RE-20	MPO Boundary	-		Regional Synchronization Program	2027	\$3,000,000	-
TxDOT	RR-001	Various locations	-		Six Union Pacific Railroad Intersections	2027	\$3,000,000	-
Total							\$290,560,000	

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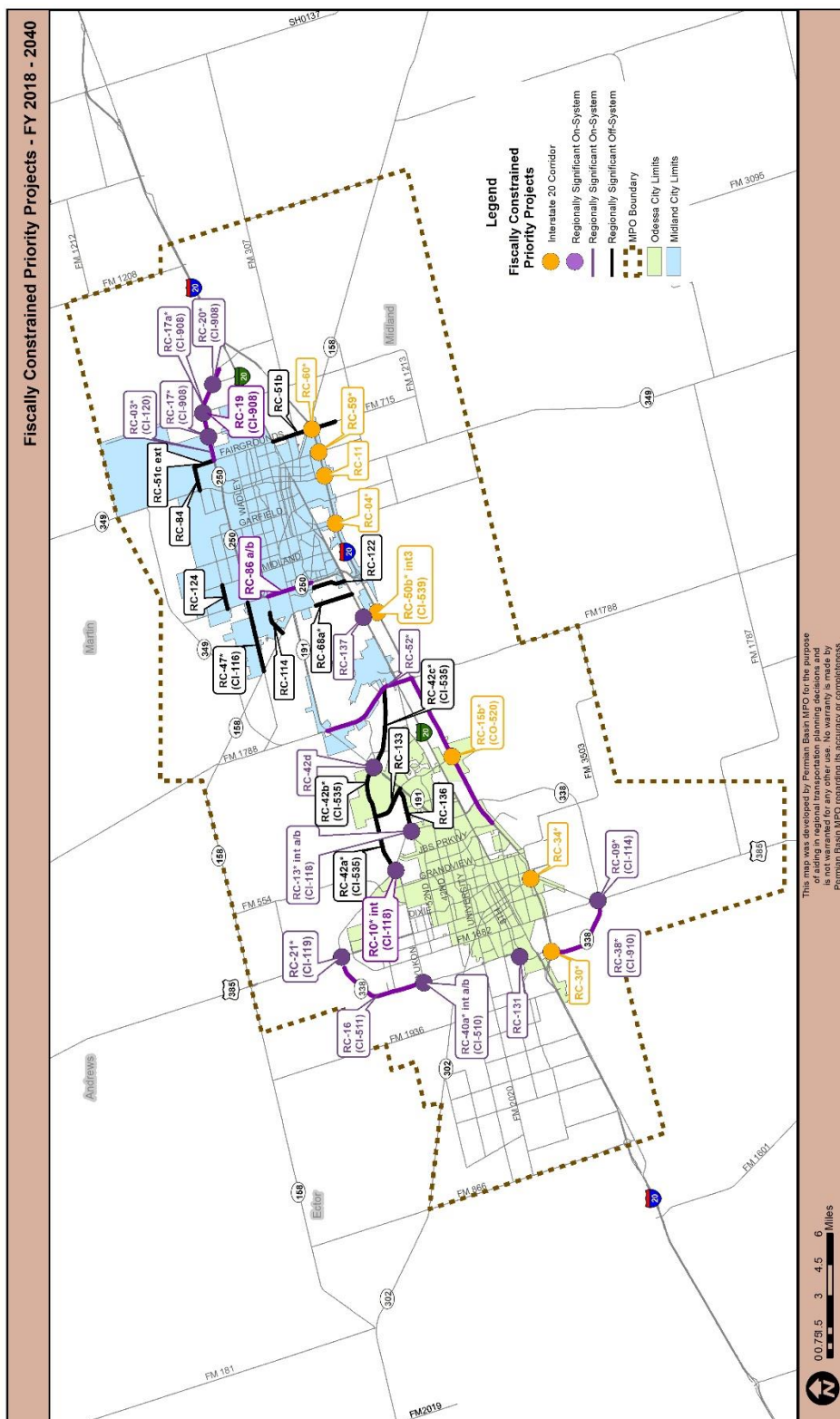
Table 11.5 Fiscally Constrained Priority Projects - FY 2028 – 2040

Sponsor	MPO-ID	Location	Limits	Length (miles)	Project Description	Target Year	Total Project Cost
Midland	RC-03* (CI-120)	Loop 250	Fairgrounds Rd to Todd Rd	1	Convert non-freeway to freeway	2028	\$2,880,000
Midland	RC-17a* (CI-908)	Loop 250	Todd Rd to CR 1135	3	Convert non-freeway to freeway	2028	\$8,640,000
Ector	RC-42a* (CI-535)	Yukon Rd	E. Loop 338 to Faudree	2	Widen non-freeway	2028	\$4,320,000
Ector	RC-42b* (CI-535)	Yukon Rd	Faudree Rd to SH 191	2	Construct new location non-freeway	2029	\$2,960,000
Midland	RC-122	Tradewinds	Thomason to BI 20	2.4	Construct new location non-freeway	2029	\$7,400,000
Midland	RC-60*	IH 20	At Fairgrounds/SH 158	1	Reconstruct interchange	2030	\$16,720,000
Midland	RC-51c ext	Fairgrounds Rd ext	Loop 250 to Mockingbird	1	Construct new location non-freeway	2030	\$6,080,000
Midland	RC-47* (CI-116)	CR 60	SH 158 to Holiday Hill Rd	2.9	Construct new location non-freeway	2031	\$18,720,000
Midland	RC-42c* (CI-535)	Yukon Rd	SH 191 to FM 1788 (@ Loop 40 south jct.)	3.6	Construct new location non-freeway	2031	\$5,610,000
Ector	RC-136	56th St.	Loop 338 E to Faudree	1.8	Reconstruct as 5 Lane Arterial - Backage Rd.	2031	\$3,120,000
Ector	RC-38* (CI-910)	Loop 338	IH 20 western jct. to US 385	3.7	Convert non-freeway to freeway	2032	\$11,840,000
Ector	RC-30*	IH 20	At Loop 338 western jct.	1	Reconstruct interchange	2033	\$32,800,000
Midland	RC-17* (CI-908)	Loop 250	At Todd Rd	1	Construct new interchange	2033	\$26,240,000
Midland	RC-137	BI 20	At CR 1250	1	Reconfigure offset at railroad track	2034	\$2,520,000
Midland	RC-84	Mockingbird ext.	SH 349 to Fairgrounds Rd.	1	Construct new location non-freeway	2034	\$3,360,000
Midland	RC-68a*	Avalon Dr. ext.	Thomason ext. to BI 20	1.5	Construct new location non-freeway	2034	\$5,040,000
Ector	RC-16 (CI-511)	Loop 338 -	Yukon Rd to 0.5 mi. W. of US 385	4.4	Convert non-freeway to freeway	2035	\$15,136,000
Midland	RC-51b	Fairgrounds Rd.	BI 20 to FM 715	3	Widen non-freeway	2036	\$7,920,000
Midland	RC-11	IH 20	At SH 349 (Rankin Hwy.)	1	Reconstruct interchange	2037	\$19,800,000
Ector	RC-13* int b (CI-118)	Loop 338 N	At 52nd/56th	1	Construct new interchange	2037	\$25,200,000
Ector	RC-40a* int b (CI-510)	Loop 338 N	At W. Yukon Rd	1	Construct new interchange	2038	\$25,760,000
Midland	RC-86 b	Loop 250	Thomason to Wadley	2.2	add direct connectors at SH 191	2040	\$12,020,000
Ector	RC-34*	IH 20	At US 385	1	Reconstruct interchange	2040	\$21,120,000
						Total	\$285,206,000

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MAP 11.3 Fiscally Constrained Priority Project



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Unfunded Projects

Projects that are listed as unfunded are not required to be fiscally constrained. Any unfunded project may be added to the fiscally constrained priority project list subject to available funding and Policy Board approval. The unfunded priority list was generated by the TAC, stakeholders and during the public workshops held in 2013.

Table 11.6 Unfunded Priority Projects

County	MPO-ID	Location	Limits	Length (miles)	Project Description	Total Project Cost
Ector	EC-06*	Preston Smith Rd. ext	North of SH 191 to Loop 338	1.5	Construct new location non-freeway	\$1,500,000
Ector	EC-08	50th St. ext	JBS Pkwy to Preston Smith ext.	0.5	Construct new location non-freeway	\$500,000
Ector	EC-09	60th	JBS Pkwy to W. of Loop 338	0.9	Construct new location non-freeway	\$900,000
Midland	MC-01 ext	Antelope Trail	I-20 to CR 140 & CR 140 to SH 349	6	Construct new location non-freeway	\$24,000,000
Midland	RC-08*	SH 349 (reliever rt)	At FM 1788/CR 60	1	Construct new interchange	\$16,000,000
Ector	RC-10* (CI-118)	Loop 338	Yukon to 52nd St.	2	Convert non-freeway to freeway	\$4,000,000
Ector	RC-13* (CI-118)	Loop 338	52nd St. to SH 191	1	Convert non-freeway to freeway	\$2,200,000
Midland	RC-14*	Loop 250	At BI 20	1	Reconstruct interchange	\$11,000,000
Ector	RC-18* (CI-909)	Loop 338	SH 191 eastern jct. to IH 20 eastern jct.	2	Convert non-freeway to freeway	\$4,000,000
Ector	RC-23a*	CR 60 extn.	Faudree Rd extn. to FM 1788	2.2	Construct new location non-freeway	\$2,200,000
Ector	RC-23b*	CR 60 extn.	Loop 338 to CR 60 extn. (E06)	3.5	Construct new location non-freeway	\$3,500,000
Ector	RC-25a* (CI-536)	Faudree Rd ext.	SH 158 to CR 40	2.2	Construct new location non-freeway	\$2,200,000
Ector	RC-25b* (CI-536)	Faudree Rd ext.	CR 40 to CR 60	2.5	Construct new location non-freeway	\$5,500,000
Ector	RC-25c* (CI-536)	Faudree Rd. ext.	CR 60 to Yukon Rd	3	Construct new location non-freeway	\$1,750,000
Ector	RC-26* (CI-505)	FM 1936	SH 302 to 42nd St	1.2	Widen non-freeway	\$1,800,000
Ector	RC-27* (CI-905)	IH 20	FM 1936 to Loop 338 western jct.	1.8	Improve mobility and add capacity	\$8,100,000
Ector	RC-28* (CI-503)	IH 20	At FM 1936	1	Reconstruct interchange	\$11,000,000
Ector	RC-29* (CI-901)	IH 20	Loop 338 western jct. to US 385	3.2	Improve mobility and add capacity	\$14,400,000
Ector	RC-32*	IH 20	At S. Crane	1	Reconstruct interchange	\$11,000,000
Ector	RC-33* (CI-901)	IH 20	US 385 to JBS Pkwy	3	Improve mobility and add capacity	\$13,500,000
Ector	RC-35*	IH 20	At FM 3503	1	Reconstruct interchange	\$11,000,000
Ector	RC-37	IH 20	at Loop 338 E	1	Reconstruct Interchange	\$20,000,000
Ector	RC-39a* (CI-903)	Loop 338	IH 20 to SH 302	4.6	Convert non-freeway to freeway	\$9,200,000
Ector	RC-40a* (CI-510)	Loop 338	Yukon Rd to SH 302	2	Convert non-freeway to freeway	\$4,000,000
Ector	RC-44* (CI-541)	Yukon Rd	SH 302 to W. Loop 338 western jct.	4.1	Construct new location non-freeway	\$4,100,000
Midland	RC-46* (CI-504)	CR 60	FM 1788 to SH 158	3.2	Construct new location non-freeway	\$3,200,000

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Table 11.6 (cont.) Unfunded Priority Projects

County	MPO-ID	Location	Limits	Length (miles)	Project Description	Total Project Cost
Midland	RC-48* (CI-502)	CR 1130	IH 20 to FM 307	1.8	Upgrade to standards non-freeway	\$2,700,000
Midland	RC-49* int (CI-534)	CR 1250	At SH 158	1	Construct new interchange	\$16,000,000
Midland	RC-49a ext.	CR 1250	SH 349 to SH 158	1	Construct new location non-freeway	\$1,000,000
Midland	RC-49a int (CI-534)	CR 1250	At SH 349	1	Construct new interchange	\$16,000,000
Midland	RC-50a* (CI-539)	CR 1250	SH 191 to BI 20	2.5	Construct new location non-freeway	\$2,500,000
Midland	RC-50a* int1 (CI-539)	CR 1250	At SH 191	1	Construct new interchange	\$16,000,000
Midland	RC-50a* int2 (CI-539)	BI 20	At CR 1250	1	Construct new interchange	\$16,000,000
Midland	RC-50b* (CI-539)	CR 1250	BI 20 to IH 20	1	Upgrade to standards non-freeway	\$3,000,000
Midland	RC-51c ext	Fairgrounds Rd ext	Loop 250 to Mockingbird	1	Construct new location non-freeway	\$4,000,000
Midland	RC-51d ext	Fairgrounds Rd ext	Mockingbird to SH 349 ext	2.7	Construct new location non-freeway	\$2,700,000
Midland	RC-54*	Garfield St	Green Tree Blvd. to SH 349 reliever route	1.8	Construct new location non-freeway	\$1,800,000
Ector	RC-71	SH 158	Grandview to US 385	2.5	Widen non-freeway	\$7,500,000
Ector	RC-72	Loop 338 S	US 385 to FM 3503	4.1	Widen non-freeway	\$12,300,000
Ector	RC-73	Loop 338 S	At FM 3503	1	Construct new interchange	\$16,000,000
Midland	RC-74	Annetta Ave ext	Loop 250 to Avalon ext	1	Construct new location non-freeway	\$1,000,000
Midland	RC-75	Annetta Ave ext	Avalon ext to BI 20	2	Construct new location non-freeway	\$2,000,000
Ector	RC-76	Loop 338 N	At 100th St	1	Construct new interchange	\$16,000,000
Ector	RC-77	US 385 (Andrews Hwy)	at 87th St.	1	Construct Lighted Intersection - Close Frontage Roads to 87th and	\$500,000
Midland	RC-79	BS 349	Mockingbird to SH 349	2.5	Widen non-freeway	\$7,500,000
Ector	RC-78	Loop 338 N	At FM 554/Grandview	1	Construct new interchange	\$16,000,000
Midland	RC-81	Fairgrounds Rd	At SH 349	1	Construct new interchange	\$16,000,000
Midland	RC-83	Garfield St	Mockingbird to Green Tree Blvd	1.3	Construct new location non-freeway	\$1,300,000
Midland	RC-87	IH 20	At Park Rd (CR 1300)	1	Construct new interchange	\$19,000,000
Midland	RC-88	IH 20	At E Airport Rd (CR 1260)	1	Construct new overpass	\$16,000,000
Midland	RC-93	SH 158	SH 191 to SH 349	5	Widen non-freeway	\$15,000,000
Midland	RC-94	SH 158	SH 349 to FM 1788	3	Widen non-freeway	\$9,000,000
Midland	RC-96	IH 20	W. Loop 250 western jct. to SH 158	6.5	Improve mobility and add capacity	\$29,250,000
Midland	RC-99	SH 349 (FM 1788)	At S Loop 40/Yukon Rd. Ext.	1	Intersection improvements	\$11,000,000
Midland	RC-102	SH 349	FM 1788/CR 60 to SH 158	2.2	Convert non-freeway to freeway	\$4,400,000
Midland	RC-103	SH 349	SH 158 to Holiday Hill Rd	4.5	Convert non-freeway to freeway	\$9,000,000
Midland	RC-104	SH 349	Holiday Hill Rd to Garfield Rd	2.9	Convert non-freeway to freeway	\$5,800,000

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Table 11.6 (cont.) Unfunded Priority Projects

County	MPO-ID	Location	Limits	Length (miles)	Project Description	Total Project Cost
Midland	RC-105	SH 349	Garfield Rd to BS 349	2.1	Convert non-freeway to freeway	\$4,200,000
Midland	RC-106	SH 349	At SH 158	1	Construct new interchange	\$16,000,000
Midland	RC-107	SH 349	At Holiday Hill	1	Construct new interchange	\$16,000,000
Midland	RC-108	SH 349	At Garfield Rd	1	Construct new interchange	\$16,000,000
Midland	RC-100	SH 349 (FM 1788)	At SH 191	1.5	Reconfigure interchange	\$22,000,000
Midland	RC-110	Thomason ext.	Loop 250 to CR 1250	2	Construct new location non-freeway	\$2,000,000
Midland	RC-111	Todd Rd.	BI 20 to Golf Course Rd.	1.5	Widen non-freeway	\$2,250,000
Midland	RC-112	Todd Rd.	Golf Course Rd. to Loop 250	3.5	Widen non-freeway	\$5,250,000
Midland	RC-113	Todd Rd. ext	Loop 250 to Mockingbird	1	Construct new location non-freeway	\$1,000,000
Midland	RC-115	Wadley Ave. ext	W of SH 158 to CR 1250 ext	1	Construct new location non-freeway	\$1,000,000
Midland	RC-116	IH 20	SH 158 to BI 20	6	Improve mobility and add capacity	\$5,500,000
Ector	RC-117	Loop 338 N	At Wireline Rd (CR 1157)	1	Construct new interchange	\$16,000,000
Midland	RC-118	SH 191	At Unnamed Rd. west of FM 1788	1	Construct new interchange	\$16,000,000
Midland	RC-120	SH 349	BS 349 to Fairgrounds Road ext	1	Construct new location non-freeway	\$2,000,000
Midland	RC-120b	SH 349	Fairground Rd ext. to CR 1150/Elkins Rd	2	Construct new location non-freeway	\$4,000,000
Midland	RC-120c	SH 349	CR 1150/Elkins Rd to CR 1208	10	Construct new location non-freeway	\$20,000,000
Midland	RC-123	Market Street	Extend to IH 20	1.2	Construct new location non-freeway	\$800,000
Midland	RC-126	SH 349	At BS 349	1	Construct New Interchange	\$16,000,000
Midland/Martin	RC-127	CR 1150/Elkins Rd.	Loop 250 to SH 349 ext.	3.8	Improve mobility and add capacity	\$3,800,000
Ector	RC-128	Loop 338 E	at JBS Parkway	1	Construct new interchange	\$16,000,000
Ector	RC-129	US 385 (Grant Ave.)	2nd St. to 10th St.	0.6	Rebuild as Pedestrian Friendly Corridor	\$6,000,000
Ector	RC-130	US 385 (Grant Ave.)	2nd St. to IH 20	0.6	Streetscape and Pedestrian Improvements	\$4,000,000
Ector	RC-132	Loop 338 W	SH 302 / 42nd St.	1	Reconstruct Interchange	\$20,000,000
Ector	RC-134	Loop 338 NE	Yukon Rd. East Interchange to US 385 N	4.8	Convert non-freeway to freeway	\$8,000,000
Ector	RC-135	Loop 338 E	at SH 191	1	Reconstruct Interchange	\$20,000,000
Ector	RC-138	IH 20	At FM 1208	1	Construct Ramps	\$5,000,000
Ector	RC-139	US 385 (Andrews Hwy)	at 100th St.	1	Construct Lighted Intersection - Close Frontage Roads to 87th and	\$500,000
Ector	RC-140	US 385 (Andrews Hwy)	at 91st St.	1	Construct Lighted Intersection - Close Frontage Roads to 87th and	\$500,000
Ector	RC-141	Loop 338 SE	FM 3503 to IH 20 eastern jct.	5	Convert non-freeway to freeway	\$6,000,000
Ector	RC-143	Dawn Ave.	87th St. to Yukon Rd.	1.8	Reconstruct as 5 Lane Arterial with Signalized Intersections at Yukon	\$2,000,000
Ector	RC-144	Dawn Ave.	Yukon Rd. to N 56th St.	0.6	Construct New Extension from Yukon to existing north of 56th St.	\$1,500,000

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Table 11.6 (cont.) Unfunded Priority Projects

County	MPO-ID	Location	Limits	Length (miles)	Project Description	Total Project Cost
Ector	RC-145	61st (Was noted as 60th)	Grandview to JBS Parkway	1	Construct new location non-freeway / 5 lane arterial	\$1,250,000
Ector	RC-146	87th St.	Andrews Hwy to Loop 338 W	2	Widen to 5 Lane Arterial	\$3,500,000
Ector	RC-147	Dixie Blvd.	Loop 338 S to north 1.5 mi. to future Dixie extn.		Construct as Arterial	\$3,000,000
Ector	RC-148	Dixie Blvd.	IH 20 to south to 1.5 mi north of Loop 338 S		Construct as Arterial	\$5,000,000
Ector	RC-149	Yukon Rd	Loop 338 W to Loop 338 E	5	Improve to Major Arterial / Non-Freeway	\$15,000,000
Ector	RC-150	US385 (Andrews Hwy)	at SH 450/302	1	Construct new intersection	\$3,000,000
Ector	RC-151	42nd / SH191	Loop 338 E Interchange to Grandview	2	Install Center Medians allowing only side street center turn	\$1,500,000
Ector	RC-152	42nd / SH191	Grandview to Dixie	1.3	Install Center Medians allowing only side street center turn	\$1,125,000
Ector	RC-153	42nd / SH191	Dixie to County Road West	1.7	Install Center Medians allowing only side street center turn	\$1,125,000
Ector	RC-154	42nd / SH191	County Road West to Loop 338 W	1	Install Center Medians allowing only side street center turn	\$1,000,000
Ector	RC-155	100 th St.	Extend from Agave (or Pepper) Ave. to Loop 338 E jct.	0.3	Construct 5 lane arterial	\$900,000
Midland	RC-156	Loop 250	A St to BS 349	6	Miscellaneous construction: construct entry/exit ramps	\$2,500,000
Midland	RC-157	HWY 158 (Garfield St)	At BI 20	1	Construct new interchange	\$20,000,000
Midland	RC-158	Backage Road	Midkiff Rd to HWY 349 north of I 20	2	Construct new location non-freeway	\$4,000,000
Midland	RC-159	HWY 158 (Andrews HWY)	Indiana St to Kent St	1	Improve mobility and add capacity	\$6,000,000
Midland	RC-160	Emergency Preemption	Citywide	NA	Improve safety	\$1,000,000
Midland	RC-161	Mockingbird Ln	Garfield St to A Street	1	Construct new location non-freeway and Improve Midland	\$10,000,000
Midland	RC-162	HWY 158 (Andrews HWY)	Loop 250 to Midkiff Rd	2	Improve mobility and add capacity	\$5,000,000
Ector	RE-02* (CI-514)	FM 1882	US 385 northern jct. to Yukon Rd	3.5	Widen non-freeway	\$5,250,000
Ector	RE-03a	BI 20	8th St. to FM 1788	7.6	Improve mobility and add capacity	\$34,200,000
Ector	RE-03b* (CI-113)	BI 20	IH 20 to 8th St.	7.2	Improve mobility and add capacity	\$32,400,000
Midland	RE-04a* (CI-115)	BI 20	FM 1788 to Wall/Front St.	6.8	Improve mobility and add capacity	\$30,600,000
Midland	RE-04b	BI 20	Front St. to IH 20	12	Improve mobility and add capacity	\$54,000,000
Ector	RE-05* (CI-107a)	IH 20	Loop 338 (West) to Crane Hwy	2.5	Convert frontage rds from 2-way to 1-way	\$7,410,000
Ector	RE-06* (CI-107b)	IH 20	Crane to FM 3503	1.9	Convert frontage rds from 2-way to 1-way	\$3,010,000
Ector	RE-07* (CI-107b)	IH 20	FM 3503 to Loop 338 eastern jct.	3	Convert frontage rds from 2-way to 1-way	\$6,250,000
Midland	RE-10a*	FM 307	Fairgrounds Rd to CR 1150	3	Widen non-freeway	\$4,500,000
Midland	RE-12a*	IH 20	Loop 338 eastern jct. to Loop 250	10.9	Convert frontage rds from 2-way to 1-way	\$16,880,000
Midland	RE-12b*	IH 20	Loop 250 to FM 307	8.3	Convert frontage rds from 2-way to 1-way	\$22,110,000
Midland	RE-14	IH 20	FM 307 to BI 20	3.8	Convert frontage rds from 2-way to 1-way	\$10,123,000

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Funded Transit

EZ Rider services are funded through Section 5307, Urbanized Area Formula Grant Program. The transit funds are used for operations, planning and maintenance activities. EZ Rider's planning funds will be applied to the monitoring of the overall transit system along with individual route performances, while maintenance funds will be used to keep the fleet in a state of good repair.

Table 11.7 EZ-Rider Base Activities

Category	2015-2024 Projected Amount	2025-2040 Projected Amount	Total 2015-2040 Projected Amount
5307: Operations	\$54,510,000	\$97,730,000	\$152,240,000
5307: Planning	\$1,315,000	\$3,092,500	\$4,407,500
5307: Maintenance	\$9,799,000	\$21,563,000	\$31,362,000
Total	\$65,624,000	\$122,385,500	\$188,009,500

The provision of Elderly and Disabled Transit Services is funded through Section 5310, Elderly and Persons with Disabilities Program. Recent funding allocations for Section 5310 were used as a baseline, along with modest increases every five years.

Table 11.8 Elderly and Disabled Transit Service Bus Activities

Description: Provide transit service for elderly and disabled persons			
YEAR	OPERATIONS	YEAR	OPERATIONS
2015	\$197,800	2028	\$249,000
2016	\$213,500	2029	\$249,000
2017	\$213,500	2030	\$249,000
2018	\$213,500	2031	\$269,000
2019	\$213,500	2032	\$269,000
2020	\$213,500	2033	\$269,000
2021	\$230,500	2034	\$269,000
2022	\$230,500	2035	\$269,000
2023	\$230,500	2036	\$275,000
2024	\$230,500	2037	\$275,000
2025	\$230,500	2038	\$275,000
2026	\$249,000	2039	\$275,000
2027	\$249,000	2040	\$275,000

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Table 11.9 EZ-Rider Vehicle Replacement Program

Description: Purchase 30' low-floor transit buses and ADA-compliant low-floor paratransit vans	
Base Year Cost	\$500,000 per bus \$150,000 per van
Other Costs	n/a
Total Project Cost	\$18,600,000
Year of Expenditure	2016: (5 buses/12) 2020: (25 buses) 2025: (12 vans)
Year of Expenditure Cost	2016: \$5,231,607 2020: \$18,503,054 2025: \$3,241,698
Funding	5339

Table 11.10 Downtown Transit Center in City of Odessa

Description: Construct building at or near current transfer center located at 5th and Lincoln	
Base Year Construction Cost	\$2,500,000
Other Costs (25% of Construction Cost)	\$625,000
Total Project Cost	\$3,125,000
Year of Expenditure	tbd
Year of Expenditure Cost	n/a
Funding	Unfunded

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Table 11.11 Downtown Transit Center in City of Midland

Description: Construct building at or near current transfer center located at Texas Ave and Ft. Worth St.	
Base Year Construction Cost	\$2,500,000
Other Costs (25% of Construction Cost)	\$625,000
Total Project Cost	\$3,125,000
Year of Expenditure	2015
Year of Expenditure Cost	2016
Funding	5307

Table 11.12 Intercity Transit Service

Description: Provide peak hour service between two downtown transfer centers, serve Midland International Airport and purchase two buses to provide service	
Base Year Cost	\$250,000
Other Costs	\$200,000
Total Project Cost (2015-2040)	\$11,250,000
Year of Expenditure	2015
Year of Expenditure Cost	2015
Funding	5307

Table 11.13 Multimodal Facility

Description: Construct new facility to serve as maintenance garage, operations facility and multimodal transportation center	
Base Year Construction Cost	\$4,500,000
Other Costs (25% of Construction Cost)	\$500,000
Total Project Cost	\$5,000,000
Year of Expenditure	2015
Year of Expenditure Cost	2016
Funding	5307

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Table 11.14 Cost to Increase Service Hours by One Hour, Monday – Saturday

Description: Provide an additional hour of fixed route transit service on all routes	
Base Year Cost	\$298,350
Other Costs	\$72,638
Total Project Cost (2015-2040)	\$9,274,700
Year of Expenditure	2016
Year of Expenditure Cost	2017
Funding	5307

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Grouped MPO Projects

Finally, some of the necessary and important transportation work in the region may be completed by state and local MPO partner agencies under State authority, wherein work may be commenced without a specific description of the project in the MTP. Table 11.15 is the approved grouped project category descriptions. At this time projects funded with Transportation Alternatives Set Aside program (TASA), Transportation Enhancement (TE), and Congestion Mitigation and Air Quality Program (CMAQ) funding require an individual Federal eligibility determination prior to authorization of Federal funding, and therefore are not approved to be grouped. Table 11.16 lists dozens of potential projects; examples include bicycle and pedestrian, safety, transit improvement, and landscaping.

Table 11.15 Grouped MPO Projects by Category

PROPOSED MPO ID	PROJECT CATEGORY	DEFINITION
GP-950	PE –Preliminary Engineering	Preliminary Engineering for any project that is not added capacity in a non- attainment area. Includes activities which do not involve or lead directly to construction such as planning and technical studies, grants for training and research programs.
GP-951	Right of Way Acquisition	Right of Way acquisition for any project that is not added capacity in a non- attainment area. Includes relocation assistance, hardship acquisition and protective buying.
GP-952 GP-957 GP-958	Preventive Maintenance and Rehabilitation	Projects to include pavement repair to preserve existing pavement so that it may achieve its designed loading. Includes seal coats, overlays, resurfacing, restoration and rehabilitation done with existing ROW. Also includes modernization of a highway by reconstruction, adding shoulders
GP-953	Bridge Replacement and Rehabilitation	Projects to replace and/or rehabilitate functionally obsolete or structurally deficient bridges.
GP-954	Railroad Grade Separations	Projects to construct or replace existing highway-railroad grade crossings and to rehabilitate and/or replace deficient railroad underpasses, resulting in no added capacity.
GP-959	Safety	Projects to include the construction or replacement/rehabilitation of guard rails, median barriers, crash cushions, pavement markings, skid treatments, medians, lighting improvements, highway signs, curb ramps, railroad/highway crossing warning devices, fencing, intersection improvements (e.g., turn lanes), signalization projects and interchange modifications. Also includes projects funded via the Federal Hazard Elimination Program and the Federal Railroad Signal Safety Program, or Access Management projects except those that result in added capacity.
GP-956	Landscaping	Project consisting of typical right-of-way landscape development, establishment and aesthetic improvements to include any associated erosion control and environmental mitigation activities.
GP-915	Intelligent Transportation Systems Deployment	Highway traffic operation improvement projects including the installation of ramp metering control devices, variable message signs, traffic monitoring equipment and projects in the Federal ITS/IVHS programs.
GP-916	Bicycle and Pedestrian	Construction or rehabilitation of bicycle and pedestrian lanes, paths and facilities.
GP-917	Safety Rest Areas and Truck Weigh Stations	Construction and improvement of rest areas and truck weigh stations.
GP-918	Transit Improvements and programs	Projects include the construction and improvement of small passenger shelters and information kiosks. Also includes the construction and improvement of rail storage/maintenance facilities bus transfer facilities where minor amounts of additional land are required and there is not a substantial increase in the number of users. Also includes transit operating assistance, acquisition of third-party transit services, and transit marketing, and mobility management coordination.

Note 1: Projects funded with Transportation Alternatives Set Aside program (TASA), Transportation Enhancement, and Congestion Mitigation Air Quality funding require a Federal eligibility determination, and are not approved to be grouped.

Note 2: Projects funded as part of the Recreational Trails Program (RTP) consistent with the revised grouped project category definitions may be grouped. RTP projects that are not consistent with the revised grouped project category definitions must be individually notes in the Transportation Improvement Program (TIIP) and State Transportation Improvement Program (STIP)

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Table 11.16 Sample Grouped MPO Projects

PROPOSED MPO ID	PROJECT CATEGORY	County	Project Description	Location
GP-950	PE-Preliminary Engineering	Midland	Northeast Midland County Mobility Corridor	TBD
GP-951		Ector	Southwest Ector County Mobility Corridor	TBD
951	Right of Way Acquisition	Any	Purchase of Right of Way	TBD
GP-952	Preventive Maintenance and Rehabilitation	Any	Roadway Resurface	TBD
GP-957			Roadway Repair	TBD
GP-958			Striping	TBD
GP-953	Bridge Replacement and Rehabilitation	Any	Increase Bridge Height	TBD
GP-959	Safety	Midland	Safety Improvements	SH058 at FM1788
		Ector	Improve Interchange	US385 at 87th
GP-956	Landscaping	Midland	Landscaping	IH 20 at JBS Parkway
		Ector	Landscaping	IH 20 Picnic Area just west of CR 1140
GP-915	Intelligent Transportation System Deployment	Any	Install ITS components	TBD
GP-916	Bicycle and Pedestrian	Midland	Greenway/Bikepath	SH0191 at SH0158 to Midland Dr at Wall St
		Ector	Various Major Roadways	Various (Regional Bike Network)
GP-917	Safety Rest Areas and Truck Weigh Stations	Any	Rest Area	TBD
GP-918	Transit Improvements	Midland/Ector	4 Additional Transit Centers	TBD
		Midland/Ector	Expand Intercity Transit Service	Along SH191, with service to airport

As the Permian Basin MPO plans for and evaluates the transportation infrastructure needs of the region, it is clear that continued growth, development pressures and increasing travel demands over the next 25 years will place a heavy burden on the existing transportation network. Roadway construction and other improvements are needed as well as enhancements for alternative transportation modes to increase usage of bicycling, walking and transit beyond recreation and necessity.